9 inches broad; the coracoid process measures 11 inches in length, and 5 inches in breadth.

DESCRIPTION OF THE FIGURES.

Fig. 1. Outer surface of *scapula* of *Sibbaldius antarcticus*.
2. Outline of the glenoid cavity.

15. On a Remarkable Discovery of Didine Bones in Rodriguez. By Alfred Newton, M.A., F.L.S., F.Z.S.

When, a few months ago, I exhibited to the Society three bones of a species of Didine bird which had lately been found in Rodriguez by my brother and Captain Barclay* (P. Z. S. 1865, pp. 199–201), and expressed the opinion that a rich reward awaited the careful explorer of the caves in that island, I had little notion that the fulfilment of my anticipation was so near at hand. Though I was sure that my brother's partial success would make him redouble his efforts to organize a systematic search of the caverns he had hurriedly visited in 1864 (see Ibis, 1865, pp. 146–154), yet the failure which had attended his many previous attempts to inspire others with the zeal he himself felt forbade me to be sanguine and to expect that any good or important results would immediately follow. It was therefore with extreme gratification that, while attending the meeting of the British Association at Birmingham at the beginning of September last, I received from him a letter, dated "Mauritius, 3rd August, 1865," from which the following is an extract:—

* * * "Two days ago I received from Mr. George Jenner, the Magistrate of Rodriguez—to whom be all honour—a box containing Turtles' and Birds' bones. With pleasure I divided them, and found that of the latter there are remains of no less than *sixteen* or *seventeen* individuals! They are all apparently of one species, but of two sizes, the difference in this respect being probably owing to sex. The most plentiful bones are tibiæ, of which there are two or three quite perfect, the antero-proximal ends being well preserved. There are also several very good femora and metatarsi, three portions of pelves (showing most conclusively that they did not belong to a Struthious bird), one anterior end of a coracoid (showing the same fact), several humeri of both sizes, an ulna and two radii, and a phalanx of the middle toe. Of these, I believe that the upper end of the tibia, the portions of the pelvis and of the coracoid, the ulna, radius, and phalanx are bones which have not before been found, and are therefore doubly valuable. I retain here a couple of perfect legs of the two sizes for our Museum; but the rest I am sending home by this mail. It will be seen that there is one tibia which is much longer than any of the others; it is not a perfect one; but there is such a strong resemblance between them all that I feel sure they are but of

* By a blunder on my part I before mistook this gentleman for a son of Sir Henry Barkly, the Governor of Mauritius, to whom he is aide-de-camp, and I consequently misspelt his name, which should be written as above.

one species. On reading over Mr. Bartlett's paper in the 'Proceedings of the Zoological Society' for 1851 (p. 280), I must say that I do not think he shows any good reason for supposing that the true Dodo ever existed in Rodriguez, or that remains of more than one species have been found in that island; and now that I have examined these bones, I am still more convinced of the fact.

"I am writing to Mr. Jenner to beg him to look out for some of the smaller bones, which I feel certain must exist; and, with any luck, I think we ought to get a perfect skeleton some day."

It appeared to me that the information contained in this extract was too interesting to be kept to myself, and accordingly I communicated it to Section D, on Monday, 11th September. Meanwhile our Secretary, Mr. Sclater, with that readiness to promote the cause of science which always distinguishes him, moved, and finally obtained, the appointment of a Committee of the Association to assist my brother, Mr. Edward Newton, in his researches, a liberal grant of money being placed at its disposal for the purpose. Not long after, the bones, which I had been anxiously expecting, arrived, and I now have the satisfaction of exhibiting them to the Society—a satisfaction which is so lively that I do not feel humiliated by having to recant the opinion I entertained on a former occasion, and to acknowledge that Mr. Bartlett and myself were wrong in separating from the *Pezophaps*, or *Didus solitarius*, a so-called *D. nazarenus*, Bartlett (P. Z. S. 1851, p. 284)—the bones on which these two supposed species have been founded being in truth (as I now agree with my brother in believing) only specimens of the different sexes of the same species*. I have not come to this conclusion without great deliberation; but it is impossible, I think, for any one to examine carefully the present large series of specimens and yet maintain a contrary opinion. The corresponding bones agree so entirely in form, in relative proportion, in everything but size, that I am unable to resist the inference that they belong to one species only. This inference however leads to other considerations, some of which I suspect are of importance.

The affinities of the extinct Didine birds to the order *Columbæ*, first detected by Professor Reinhardt, have, since the publication of the well-known monograph of Messrs. Strickland and Melville, met with pretty general acceptance among ornithologists. But, so far as I know, none of the existing *Columbæ* present any remarkable sexual distinctions, either in bulk or otherwise. As a group, the Pigeons are remarkably and, relatively to most birds, abnormally uniform in this respect. In the species to which the bones now exhibited belong, however, the contrary is most conspicuously the case; and one naturally turns to seek other instances in which a species differs

* It is some consolation to me to find that Mr. Strickland (Trans. Zool. Soc. iv. pp. 187–196) was led into the same error—a pardonable one, I think, when the absence (from the series of eighteen bones described by him and Dr. Melville) of all bones of intermediate size, such as I now possess, is considered. Mr. Strickland retained his name *Pezophaps solitaria* for the supposed larger species, assigning the smaller bones to another, which he called *P. minor* (p. 191).

from most of its allies in a similar manner. Two, if not more, such instances will at once occur to every ornithologist. They are those of the Capercally (*Tetrao urogallus*) and the Great Bustard (*Otis tarda*). In both these birds, I believe, the disproportion in size between the sexes is not greater than is observable in the remains of the species now before the Society. But then another idea is called up: *Tetrao urogallus* departs from the usual habits of the *Tetraoninæ* by being polygamous; and (though I am aware that the statement has been disputed) the same is said to be the case with *Otis tarda*. Indeed I am inclined to suppose that with all species of birds the practice of polygamy is accompanied by a more or less considerable disproportion in the size of the sexes. Whether the converse proposition is true I am not in a position to declare. The account given of the '*Solitaire*' (and that these are the bones of *Solitaires* there can be, I believe, no reasonable doubt) by Leguat, and quoted at length from the old translation by Strickland, leaves it, I think, an open question whether this bird was polygamous or not, though that able naturalist (p. 54) considers it to have had monogamous habits; and certainly the statement of Leguat, that the male birds assisted in incubation, seems to confirm this view. The question is one which is not likely to meet with a solution now; but I would remark that it bears very little on the affinities of the bird, since a consideration of the cases I have cited of the Capercally and the Great Bustard shows that polygamous species may be very closely allied to others which are monogamous, and therefore, even if it could be proved that the *Solitaire* came under the former category, the fact would scarcely affect the theory of its Columbine affinities.

The collection of bones I now exhibit consists of specimens which may thus be roughly enumerated:—

	Large Size.		Small Size.	
	Right.	Left.	Right.	Left.
Femora	4	5	2	4
Tibiæ	7	8	9	7
Fibulæ	2	0	0	0
Tarso-metatarsi	5	5	0	6
Median digital phalanx	1?	0	0	0
Humeri	2	1	2	1
Ulnæ	2	0	0	1
Radii	0	1	0	1
Coracoid (anterior portion)	0	0	1	0
Portions of pelvis	1		3	

Some of the specimens, I must state, are not to be classed as above without hesitation. Though the difference of the extremes in size on either side is very great, there is a not inconsiderable number which are not so easily assigned; and of these most appear, from unmistakeable characters, to be the bones of fully adult birds. But, again, in the case of *Tetrao urogallus* it is well known that the same thing is to be observed. The adult males of that species vary, even in the same locality, greatly in size, to whatever cause the fact be owing,

while the females in this respect agree more closely with one another. On the strength of this consideration I am inclined to presume that all the larger examples of the bones of *Pezophaps* or *Didus solitarius* are those of adult males; while all the smaller ones, among which there is not the same remarkable difference of size, are those of females.

I have further to remark that, during the late visit of Professor Steenstrup to this country, I had the opportunity of showing the present collection of bones to that eminent naturalist; and that he corroborated an opinion I had already formed, namely, that these specimens bear undoubted traces of the birds to which they belonged having been eaten by men or predatory animals. Professor Steenstrup has enjoyed such extraordinary opportunities of examining the remains found in the kitchen-middens of his own country, that his judgment on this point is hardly to be questioned. I much wish I was not compelled to come to this conclusion; for, if it be so, the experience of the Danish archæontologists shows that the chances of obtaining, I will not say a complete skeleton, but such a series as would contain a perfect specimen of every bone in the skeleton, are very much diminished, since some bones there are which, I believe, are never found under these circumstances. I confidently look forward, however, to receiving before very long a still larger collection of Didine bones from the Mascarene Islands, and in that expectation I forbear to enter into any detailed description of the examples now exhibited; for I hope that with increased material in my hands there may be submitted to the Society a paper upon them suitable for publication in our 'Transactions.'

16. Remarks upon the Affinities of the Prongbuck (Antilocapra americana). By A. D. Bartlett, Superintendent of the Society's Gardens.

Notwithstanding that this remarkable animal has been the subject of considerable notice, I believe few naturalists have felt perfectly satisfied with its supposed affinities; none, however, appear to have hesitated to place it among the hollow-horned Ruminants. Once there, its most interesting structure and economy were altogether overlooked and unsuspected. No writer that I can find, has ever stated that this animal carries deciduous horns. This character has always been considered to belong exclusively to the Cervine group of Ruminants; and however much the Pronghorn differed from the Antelopes, still it has been retained among them upon this supposed distinctive character. I will now endeavour to prove that this animal's affinities are closer to the genus *Cervus*, to which I think it more nearly allied, than to the Antelopes. Although it does possess to a great extent the characteristics of the hollow-horned Ruminants, still I think I shall be able to show that the horns of the Prongbuck are a modification of the horns of *Cervus*, with a strong resemblance to and intermediate character approaching the hollow-horned Ruminants'. In support of this statement, I adduce the fact that the Prongbuck